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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,177	07/15/2003	Anders Bengt Ingemar Hallin	35849	8647

116 7590 08/13/2004

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EXAMINER

ZEC, FILIP

ART UNIT	PAPER NUMBER
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3744

DATE MAILED: 08/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/620,177

Applicant(s)

HALLIN, ANDERS BENGT  
INGEMAR

Examiner

Filip Zec

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/23/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 3,803,862 to Schumacher, in view of U.S. Patent 5,406,805 to Radermacher et al. Schumacher discloses applicant's basic inventive concept, an absorption refrigerator (FIG. 1) comprising a four walled enclosure (col 2, lines 7-20) with a door (4, FIG. 2), a low temperature compartment (2), a high temperature compartment (3), said compartments divided by a partition wall (1), an ice maker (12) having a heater inside for partially melting the ice (col 4, lines 50-65), an evaporator tube which cools the low temperature compartment by absorption (23), then absorbs heat by conduction from the ice maker (24) and finally cools the high temperature compartment (32), substantially as claimed with the exception of having the actual evaporator tube in the high temperature compartment. Radermacher shows this feature to be old in the refrigeration art (2 and 6, FIG. 1), wherein one cools the high and low temperature refrigerator compartments via the connected evaporating tube. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made from the teaching of Radermacher to modify the system of Schumacher, by modifying the cooling connection between the ice maker compartment and the high temperature compartment in order to provide convenient and efficient defrost cycle at the expense of the existing cooling cycle (col 2, lines

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30-42), with savings of approximately 10-20% as compared with standard single-stage systems.

Schumacher also teaches the part of the evaporator cooling the low temperature compartment, being upstream from both the ice-maker and the high temperature compartment (FIG. 1), while the ice-maker is upstream from the high temperature compartment (col 2, lines 60-65).

3. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent 3,803,862 to Schumacher, in view of U.S. Patent 5,406,805 to Radermacher et al., as

applied to claims 1-5 above, and further in view of U.S. Patent 4,307,578 to Ecker. Schumacher

in view of Radermacher discloses applicant's basic inventive concept, a refrigerator with an

evaporator tube which cools the low temperature compartment by absorption, then absorbs heat

by conduction from the ice maker and finally cools the high temperature compartment,

substantially as claimed with the exception of having the non-coaxial arrangement of multiple

tubes inside of the evaporator tube. Ecker shows this feature to be old in the refrigeration art

(FIG. 4). Therefore, it would have been obvious to one having ordinary skill in the art at the

time the invention was made from the teaching of Ecker to modify the system of Schumacher in

view of Radermacher, by having the non-coaxial arrangement of multiple tubes inside of the

evaporator tube in order to efficiently act as a heating or a cooling device (depending on the

section of the refrigerator).

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 4,741,175 to Schulze, James L.

U.S. Patent 4,033,739 to Ballarin, Jurgen

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5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Filip Zec whose telephone number is (703) 306-3446. The examiner can normally be reached on Monday through Friday, with the exception of every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Denise Esquivel can be reached on (703) 308-2597. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Filip Zec  
Examiner  
Art Unit 3744

FZ

  
DENISE L. ESQUIVEL  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700